

WHAT IS CLAIMED IS:

1. An image processing apparatus comprising:
an input means for inputting image data;
a frequency conversion means for converting the
5 image data into frequency data in a frequency band;
a data processing means for performing
predetermined processing on the frequency data
generated by the frequency conversion means;
an illuminance detection means for detecting
10 illuminance of the image data; and
a changing means for changing the operation of
the data processing means on predetermined frequency
data in accordance with an output from the
illuminance detection means.
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2. An image processing apparatus according to
claim 1,
wherein the illuminance detection means outputs
a first output signal when detecting that the
20 illuminance of the image data is lower than first
illuminance, and
wherein when receiving the first output signal,
the changing means changes the processing for high-
frequency band data of the data processing means.
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3. An image processing apparatus according to
claim 2,

wherein the data processing means is a quantization means, and

wherein when receiving the first output signal, the changing means changes a quantization step.

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4. An image processing apparatus according to claim 2,

wherein the data processing means is a multiplication means, and

10 wherein when receiving the first output signal, the changing means sets a value smaller than a normal value for multiplication.

5. An image processing apparatus according to
15 claim 1,

wherein the illuminance detection means outputs a second output signal when detecting that the illuminance of the image data is lower than second illuminance, and

20 wherein when receiving the second output signal, the changing means changes the processing for low-frequency band data of the data processing means.

6. An image processing apparatus according to
25 claim 5,

wherein the data processing means is a quantization means, and

wherein when receiving the second output signal,
the changing means changes a quantization step.

7. An image processing apparatus according to
5 claim 5,

wherein the data processing means is a
multiplication means, and

wherein when receiving the second output signal,
the changing means sets a value smaller than a normal
10 value for multiplication.

8. An image processing apparatus according to
claim 1,

wherein the data processing means performs one
15 of frequency band division encoding and wavelet
conversion encoding.

9. An image processing apparatus according to
claim 1,

20 wherein the data processing means performs one
of discrete cosine conversion and corrected discrete
cosine conversion.

10. An image processing apparatus according to
25 claim 1,

wherein the illuminance detection means detects
the illuminance by referring to low-frequency band

data generated as a result of the conversion by the frequency conversion means.

11. An image processing apparatus for decoding
5 encoded image data, comprising:

an input means for inputting the encoded image data;

a data processing means for performing predetermined processing on the encoded image data;

10 an illuminance detection means for detecting illuminance of the encoded image data; and

a changing means for changing the operation of the data processing means on predetermined frequency data of the encoded image data in accordance with an
15 output from the illuminance detection means.

12. An image processing apparatus according to claim 11,

wherein the illuminance detection means outputs
20 a first output signal when detecting that the illuminance of the encoded image data is lower than first illuminance, and

wherein when receiving the first output signal, the changing means changes the processing for high-
25 frequency band data of the data processing means.

13. An image processing apparatus according to

claim 12,

wherein the data processing means is an inverse quantization means, and

wherein when receiving the first output signal,
5 the changing means performs inverse quantization with a quantization step smaller than that at the time of encoding.

14. An image processing apparatus according to
10 claim 12,

wherein the data processing means is a multiplication means, and

wherein when receiving the first output signal, the changing means sets a value smaller than a normal
15 value for multiplication.

15. An image processing apparatus according to claim 11,

wherein the illuminance detection means outputs
20 a second output signal when detecting that the illuminance of the encoded image data is lower than second illuminance, and

wherein when receiving the second output signal, the changing means changes the processing for low-
25 frequency band data of the data processing means.

16. An image processing apparatus according to

claim 15,

wherein the data processing means is an inverse quantization means, and

wherein when receiving the second output signal,
5 the changing means performs inverse quantization with a quantization step smaller than that at the time of encoding.

17. An image processing apparatus according to
10 claim 15,

wherein the data processing means is a multiplication means, and

wherein when receiving the second output signal, the changing means sets a value smaller than a normal
15 value for multiplication.

18. An image processing apparatus according to claim 11,

wherein the data processing means performs one
20 of decoding of an image data to which frequency band division encoding is performed and decoding of an image data to which wavelet conversion encoding is performed.

25 19. An image processing apparatus according to claim 11,

wherein the data processing means performs one

of decoding of an image data to which discrete cosine conversion is performed and decoding of an image data to which corrected discrete cosine conversion is performed.

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20. An image processing apparatus according to claim 11,

wherein the illuminance detection means detects the illuminance by referring to low-frequency band
10 data among the encoded image data, which is generated as a result of frequency conversion.